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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: YONA, Zvi et al. Examiner: CHANG, Audrey Y.
Serial No.: 09/818,575 Group Art Unit: 2872
Filed: March 28, 2001 Attorney Docket No.: P-3068-US
Title: PERSONAL DISPLAY SYSTEM WITH EXTENDED FIELD OF VIEW

REPLY TO EXAMINER'S ANSWER

Mail Stop Appeal Brief – Patents
Board of Patent Appeals and Interferences
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants respectfully submit this reply to the Examiner's answer.
Applicants below address the grounds of rejection in order.

A. Claims 1-7, 9-16 and 18-38 comply with the enablement requirement of 35 USC §112, First Para.

Applicants are grateful to the Examiner for withdrawing the rejection under 35 U.S.C. §112 for lack of enablement. Accordingly, the sole remaining rejection of claims 24-34 has been removed and these claims are allowable.

**B. Claims 1-7, 9-16, 18-23, 35 and 37 are patentable
under 35 USC §103(a) over Preston**

In the Office Action, the Examiner rejected claims 1-7, 9-16, 18-23, 35 and 37 under 35 U.S.C. § 103(a), as being unpatentable over Preston. As argued in the opening brief, Preston does not render claims 1-7, 9-16, 18-23, 35 and 37 obvious.

Applicants rely on the arguments presented in the opening brief, but wish to emphasize a number of points in light of the Examiner's Answer.

Preliminarily, Applicants are grateful to the Examiner for clarifying that the rejection over Preston used either of the right or left optical systems to read on the claims. (Examiner's Answer p. 8). However, this only compounds the Examiner's mistake. For the reasons described in the Appeal Brief, as well as the reasons stated below, the individual eye modules of Preston do not read on the claims. The optical system of the present invention and Preston teach entirely different devices, with different – and indeed contradicting – purposes.

**1. Preston Does Not Teach Direct First and Second
Images to Different Spatial Regions of a Reflecting Unit**

Each eye of Preston's display decomposes a single image into its color components and transmits each of these separately to the same area of the eye piece, thereby recreating the single image at the reflecting unit. Preston teaches the well-known technique of transmitting an image using its component colors (e.g., red, green, blue) in a rapid series to form a color image. However, by definition, the device of Preston is intended to create a single image. That is, Preston's color components must be projected to the same place on the reflecting unit in order to form an integrated image.

It will be recalled that the device of the present invention takes an image, and transmits it to the reflecting unit via a relay having a smaller field of view than the total image being shown. In one embodiment, the device may do so by transmitting the image piecemeal, for example, by transmitting spatial fractions or

complements of the image sequentially. The end result is an image at the eyepiece having a wider field of view than the relay. This is completely different from the device of Preston.

Therefore, Preston does not teach "a redirecting unit coupled to said image source to direct at least said first and second images to at least first and second different, respective, spatial regions of a reflecting unit. . ." as recited in claims 1, 10, 17, and 19 (emphasis added). Nor would it have been obvious to use the device of Preston to project the color complements to different spatial regions, because doing so would in fact serve to disassemble the image, whereas Preston's goal is to integrate the color components into a single image.

The Examiner argues that the different colored image components are directed to different holograms, and therefore, that the images go to different spatial regions of the reflecting unit. However, this argument misreads the claims. As shown in Preston Fig. 7 (and as the Examiner apparently agrees), the red 60, green 62 and blue 64 holograms are stacked – i.e., they differ only in the depth dimension.

Therefore, the color components in Preston are directed from the image source to the same place, and thereupon, they may be reflected variously by the different holograms. That is, assuming that the red hologram 60 is closest to the image source, then all color components of the image must pass through the red hologram, whether or not the red is switched on. Thus, for example, when the green color is active, the image is projected first to the red hologram 60 and then to green hologram 62. Similarly, the blue image is projected first to the red hologram 60, then through the green hologram 62 and finally reflected at the blue hologram 64. Thus, all color components hit the reflecting unit at the same place (in this example, at the red hologram). Preston, therefore, does not teach directing "first and second images to at least first and second different, respective, spatial regions of a reflecting unit.

In any event, if the language of claims 1 and 10 may be construed to read on the stacked holograms taught by Preston, claims 25 and 28, which depend from claims 1 and 10 recite that the first and second reflecting units are adjacent to each other, which is not taught or rendered obvious by Preston. It is believed that the Examiner does not reject these claims over prior art, and that the claims are therefore patentable over Preston.

2. Preston Does Not Teach Directing First and Second Images to Different Spatial Regions of a Reflecting Unit

The Examiner has interpreted the claimed language "first and second complementary images" to mean (or at least to include) identical images having different colors. This is, of course, nonsensical in the context of the specification and claims. Moreover, the Examiner's definition of "complementary" as "making a complement" (p. 9) does not support the Examiner's argument. The claims do not recite that the images are of complementary colors, but that the images are complements of each other, i.e., that they form "mutually completing parts" or "fill up, complete or make whole." (See, "complement", Merriam-Webster's Collegiate Dictionary 10th Ed. (1998)).

With regard to the Examiner's argument that the "claims of the instant application never claim the images are different," this is not necessary, insofar as it is expressly claimed that the first and second images are transmitted to different areas of the reflecting unit. At least this aspect of the claims is novel and not obvious in light of Preston, which projects the first and second color components to the same area of the reflecting unit in order to form a color image.

C. Claims 34, 36 and 38 are patentable under 35 USC §103(a) over Preston in view of Chauvin

In the interest of conserving space, Applicants will not reiterate arguments herein, but to emphasize that Preston in combination with Chauvin does not teach

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the elements of the independent claims. Accordingly, claims 34, 36 and 38 are patentable.

**D. Claims 8 and 17 are patentable
under 35 USC §103(a) over Florence**

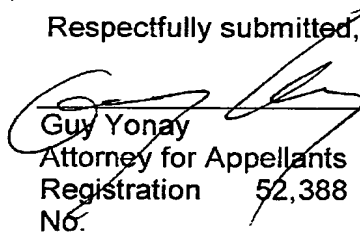
Applicants withdraw claims 8 and 17 at this time without prejudice to reinclusion in a future continuation or divisional application.

III. Conclusion

In view of the foregoing arguments, and for at least the reasons discussed above, Appellants respectfully submit that the final rejection should be reversed and claims 1-7, 9-16, and 18-38 should be allowed.

In any event, as noted above, it is respectfully noted that there is no now no rejection on record as to claims 24-34, and that these claims therefore contain allowable subject matter.

Respectfully submitted,



Guy Yonay
Attorney for Appellants
Registration 52,388
No.

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Pearl Cohen Zedek Latzer, LLP
10 Rockefeller Plaza, Suite 1001
New York, New York 10020
Tel: (212) 632-3480
Fax: (212) 632-3489